

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Request for Extension of the Sunset Date)
of the Structural, Non-Discrimination, and) CC Docket No. 96-149
Other Behavioral Safeguards Governing)
Bell Operating Company Provision of In-)
Region, Inter-LATA Information Services)

OPPOSITION OF U S WEST COMMUNICATIONS, INC.

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SUMMARY

U S WEST Communications, Inc. ("U S WEST") hereby responds in opposition to the request made by the Commercial Internet eXchange Association ("CIX") and the Information Technology Association of America ("ITAA"), which requests that the Federal Communications Commission ("Commission") extend the sunset date of the application of Section 272 with respect to in-region, interLATA information services.

U S WEST urges the Commission should refrain from extending this sunset. First, the competitive developments in the advanced services market and the deregulatory mandates of the Telecommunications Act of 1996 require that the Commission allow the competitive forces of the marketplace to act, and allow the Bell Operating Companies ("BOC") to structure their operations as they see fit without being hamstrung by excessive regulation. Section 272 itself indicates that -
- unlike the application of 272 to in-region, interLATA telecommunications services which sunsets three years after BOC entry in a given market -- Congress intended that the application of 272 to interLATA information services four years after the Act was passed -- regardless of whether and where the BOCs have obtained Section 271 relief.

Moreover, the Commission is obligated under the Act to remove unnecessary regulatory burdens -- even where Congress has not pre-determined that a particular regulation should sunset by a particular date. Accordingly, in those circumstances where, as here, Congress *has* pre-determined that a regulation should sunset, the

Commission should extend that sunset only upon a particularly high showing of need, and only where it is shown that such a sunset is consistent with the entire Act. Such a showing cannot be made in this case.

The markets for information services and broadband access services are already competitive, and the Commission's existing regulations are more than sufficient to guard against any anti-competitive conduct by the BOCs. Thus, instead of perpetuating yet another needless layer of regulation, the Commission should simply enforce its existing regulations. Furthermore, as the Commission has recognized, structural separation has slowed or prevented altogether the introduction of new information services by the BOCs. Accordingly, extension of the sunset would be directly contrary to the Commission's mandate to accelerate the deployment of advanced telecommunications services.

Finally, the application of Section 272 with respect to out-of-region, interLATA information services would serve no purpose and not even the Petitioners have suggested that the Commission should extend the sunset for out-of-region services.

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OPPOSITION OF U S WEST COMMUNICATIONS, INC.

U S WEST Communications, Inc. ("U S WEST") hereby submits its opposition to the above-captioned request made by the Commercial Internet eXchange Association ("CIX") and the Information Technology Association of America ("ITAA") (collectively, the "Petitioners").¹ For the reasons stated below, the Federal Communications Commission ("Commission") should deny Petitioners' Request and refrain from extending the statutory four-year sunset of Section 272 as it applies to the provision of interLATA information services by a Bell Operating Company ("BOC").

I. **THE COMMISSION SHOULD REFRAIN FROM EXTENDING THE
SUNSET WITH RESPECT TO IN-REGION, INTERLATA SERVICES**

The Commission should refrain from extending the Section 272 sunset with respect to in-region, interLATA services. First, the competitive developments in the advanced services market and the deregulatory, pro-competitive mandates of the

Telecommunications Act of 1996 require that the Commission allow the competitive forces of the marketplace to act without being hamstrung with excessive regulation. Indeed, the plain language of Section 272(f)(2) indicates that Congress intended that Section 272 would sunset with respect to interLATA information services four years after the Act was passed -- regardless of whether and where the BOCs have obtained Section 271 relief.

Moreover, the Commission is obligated under the Act to remove unnecessary regulatory burdens -- even where Congress has not pre-determined that a particular regulation should sunset by a particular date. Accordingly, in those circumstances where Congress *has* pre-determined that a regulation should sunset -- as Congress did concerning the application of Section 272 to interLATA information services -- the Commission should continue to impose that regulation only upon a particularly high showing of need. And that showing has not been, and cannot be, made in this case.

Indeed, the markets that Petitioners are concerned with -- the market for Internet access and the related market for Digital Subscriber Line ("DSL") transport services -- are competitive. Furthermore, given the actions that the Commission has taken with respect to advanced services in the last year,² the BOCs

¹ Public Notice (correction), DA 99-2736, rel. Dec. 9, 1999. Request of the Commercial Internet eXchange Association and the Information Technology Association of America, filed Nov. 29, 1999 ("Request").

² See, generally, In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd. 4761 (1999) ("Advanced Services First Report and Order"); Second Report and Order, CC Docket No. 98-147, FCC 99-330,

will have no opportunity to control these markets, or otherwise engage in discriminatory or anti-competitive conduct. Any speculation that the BOCs will violate the regulations promulgated in the Advanced Services Orders can best be addressed by enforcing those regulations, rather than imposing another needless layer of regulation. Finally, continuation of Section 272 regarding interLATA information services will stifle innovation in the advanced services market and thwart the introduction of such services to all segments of the market.

A. The Plain Language Of Section 272 Indicates That Congress Intended For That Provision To Sunset With Respect To InterLATA Information Services Regardless Of When The BOCs Entered That Market

Section 272(f)(2) provides that other than subsection (e), the provisions of section 272 “shall cease to apply with respect to the interLATA information services of a Bell operating company 4 years after [the date of enactment of the Telecommunications Act of 1996], unless the commission extends such 4-year period by rule or order.”³ In construing another sunset provision under the Act, the Commission concluded that a sunset reflects a “policy judgment” and “legislative compromise” made by Congress that should not be upset “based on arguments

rel. Nov. 9, 1999 (“Advanced Services Second Report and Order”); In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket Nos. 98-147, 96-98, Third Report and Order in CC Docket No. 98-147, Fourth Report and Order in CC Docket No. 96-98, FCC 99-355, rel. Dec. 9, 1999 (“Advanced Services Third Report and Order”) (collectively, “Advanced Services Orders”).

³ 47 U.S.C. § 272(f)(2).

Congress found unpersuasive in 1996;” instead, altering the sunset must involve an unanticipated circumstance.⁴

Although the Commission is not altogether precluded from extending the sunset by “rule or order,”⁵ the discretion to do so is limited. Indeed, Section 272(f)(2) must be read in conjunction with the rest of the Act, including Sections 10,⁶ 11,⁷ and 706,⁸ which disfavor continued regulation, and affirmatively obligate the Commission to remove unnecessary regulations -- even those for which Congress did not specify a sunset date. Since Congress did specifically provide that Section 272 should sunset with respect interLATA information services, the Commission should extend the sunset only upon particularly high showing that continued regulation is necessary -- a showing that Petitioners simply have not made.

Instead, Petitioners feebly assert that Congress did not intend Section 272 to sunset before it took effect -- i.e., before the BOCs received Section 271 approval.⁹ While Congress undoubtedly did contemplate that the BOCs would have achieved Section 271 relief in some states after four years, there is no reason to believe that Congress contemplated that the incumbents would obtain Section 271 relief in all

⁴ In the Matter of Petition of Ameritech Corporation for Forbearance from Enforcement of Section 275(a) of the Communications Act of 1934, As Amended, CC Docket No. 98-65, Memorandum Opinion and Order, FCC 99-215, rel. Aug. 31, 1999 ¶ 8 (rejecting Ameritech’s request to apply an earlier sunset date).

⁵ 47 U.S.C. § 272(f)(2).

⁶ 47 U.S.C. § 160.

⁷ 47 U.S.C. § 161.

⁸ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 § 706 (1996), codified at 47 U.S.C. § 157 note.

states in that time.¹⁰ Nonetheless, Congress specifically directed that the provisions of Section 272 as they apply to interLATA information services should sunset within four years. Had Congress intended that the structural separation and other requirements of Section 272 continue to apply for some period after the BOC achieved 271 relief, then Congress would have specifically provided for such, as it did with respect to interLATA telecommunications services.¹¹ However, because Congress directed that this sunset should occur by a date certain (i.e., four years from the passage of the Act), the Commission should give effect to this clear directive absent a compelling need to extend the sunset, which Petitioners have not made.

B. The BOCs Do Not Possess A Dominant Position In Either
The Broadband Services Market Or The Internet Access Market

The broadband services (i.e., DSL) market is nascent and the BOCs do not possess the same dominant position as they do with respect to their core services.¹²

⁹ Request at 4-7.

¹⁰ Moreover, since the passage of the Act, Section 272 has been effective as to certain interLATA activities that the BOCs were immediately authorized to engage in, specifically, out-of-region, interLATA information services and incidental, interLATA services encompassed by Section 271(g)(4). See 47 U.S.C. § 272(a)(2)(B)-(C).

¹¹ See 47 U.S.C. § 272(f)(1) (provisions of Section 272 will apply to the BOCs for a 3-year period following 271 authorization).

¹² See In the Matter of Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Tele-Communications, Inc., to AT&T Corp., 14 FCC Rcd. 3160, 3205-7 ¶¶ 92-96 (1999); In the Matter of Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, CC Docket No. 92-297, Sixth Notice of Proposed Rule Making,

Similarly, as CIX asserted in its comments in the Line Sharing proceeding, the vast majority of consumers obtain their Internet services from independent Internet service providers (“ISP”), and not from the Internet offerings of the incumbent local exchange carriers (“ILEC”).¹³ Thus, the BOCs simply do not have the market power in the advanced services market to control price or to exclude entry. Moreover, the BOCs have been able to provide Internet access, as long as that access is not bundled with an interLATA transmission component. Even before the Commission issued the various Advanced Services Orders, there was no evidence that the BOCs were able to use their dominance with respect to their core services to even gain a foothold in the Internet access market. To the contrary, there are countless ISPs available in any given area,¹⁴ and the BOC-affiliated ISPs have minimal market share.

U S WEST does not, as Petitioners suggest, seek to provide DSL services in a manner that disadvantages ISPs.¹⁵ To the contrary, the company is actively (and

FCC 99-379, rel. Dec. 13, 1999 at Dissenting Statement of Commissioner Michael Powell.

¹³ Comments of Commercial Internet eXchange Association, CC Docket No. 98-147, at 3-4 (“CIX Advanced Services Comments”).

¹⁴ See, e.g., <http://thelist.internet.com/areacode/303/#more> (listing available ISPs in the 303 area code).

¹⁵ U S WEST has not delayed ISPs from obtaining DSL-conditioned lines in Utah or anywhere else. The complaint referenced by the Petitioners in Utah was found to be moot by Utah Public Service Commission without any finding of liability or impropriety on U S WEST’s part. As to Petitioners’ claims regarding New Mexico, it is not clear what the Petitioners mean in asserting that U S WEST’s failure to provide DSL service in New Mexico is “largely because its anti-competitive MegaBits [sic] tariff has been challenged by competitors,” and that such refusal “will stymie competition in the provision of DSL transport services.” Request at 9.

successfully) marketing DSL services to third-party ISPs. Specifically, U S WEST's MegaCentral Service, which is targeted at the ISP market, allows any ISP to connect to its end-user customers at speeds up to 150 times faster than the speed of the average dial-up modem in today's state-of-the-art computer. An ISP can purchase MegaCentral in any central office where U S WEST offers DSL services, thereby obtaining the ability to sign-up its own DSL customers.¹⁶ As of November 1999, U S WEST had 373 MegaCentral subscribers, the majority of which are ISPs. In addition, any competitive local exchange carrier ("CLEC") can obtain unbundled loops from U S WEST and provide its own DSL service, so long as the loops are qualified for DSL service.

Given that the DSL market is just in its nascence, and that the Commission has taken a number of actions to ensure that CLECs will be able to provide DSL services, there is no reason to believe that the structural separation requirements of Section 272 are necessary to ensure that the BOCs do not "act anti-competitively in the advanced services market."¹⁷ Finally, the Commission should not lose sight of the fact that no BOC has yet received 271 approval; thus, concerns about the BOCs immediately acting in an anti-competitive manner in the interLATA information services upon the sunset are not apt because the BOCs cannot provide those

First, there is nothing anti-competitive about U S WEST's federal Megabit tariff, which became effective without objection by this Commission. Moreover, the failure to provide DSL service in New Mexico is hardly anti-competitive -- it certainly does not put U S WEST at a competitive advantage *vis-à-vis* another ISP when U S WEST does not provide the service at all.

¹⁶ See U S WEST F.C.C. Tariff No. 5 § 8.

¹⁷ Request at 9.

services at all. Moreover, even if the BOCs did, after receiving Section 271 relief, engage in the speculative parade of horrors suggested by the Petitioners, the Commission could review such conduct as a means of enforcing the conditions of the 271 relief.¹⁸

C. Rather Than Perpetuating Another Layer Of Regulation, The Commission Should Allow The Competitive Forces Of The Marketplace, Along With The Commission's Existing Regulations, To Ensure That The BOCs Do Not Discriminate

In the National Directory Assistance Order, the Commission found that “competition is the most effective means of ensuring that the charges, practices, classifications, and regulations with respect to . . . [a particular service] are just and reasonable, and not unjustly or unreasonably discriminatory.”¹⁹ The key, the Commission found, is whether competing providers can compete on a level playing field.²⁰ And there can be little doubt that the Commission has more than leveled the playing field *vis-à-vis* the BOCs. Indeed, the Commission has taken numerous actions to address the concerns raised by Petitioners concerning increasing competitive access to the ILECs’ DSL offerings, and there is no reason to believe that these actions or the existing regulations are necessary to protect them from anti-competitive conduct from the ILECs.

¹⁸ See 47 U.S.C. § 271(d)(6).

¹⁹ In the Matter of Petition of U S WEST Communications, Inc. for a Declaratory Ruling Regarding the Provision of National Directory Assistance; Petition of U S WEST Communications, Inc. for Forbearance; The Use of N11 Codes and Other Abbreviated Dialing Arrangements, CC Docket Nos. 97-172, 92-105, Memorandum Opinion and Order, FCC 99-133, rel. Sep. 27, 1999 ¶ 31.

²⁰ Id. ¶ 36.

For instance, as part of the Advanced Services proceeding, the Commission ensured that ILECs would provide DSL services to ISPs at the lowest possible price by ordering that the ILEC-provided DSL services to ISPs who package them as part of high-speed Internet services are not subject to the Act's discounted resale obligation.²¹ Even more recently, the Commission took action to "promote the availability of competitive broadband xDSL-based services, especially to residential and small business customers,"²² and mandated that ILECs "must condition loops to enable requesting carriers to provide xDSL-based services on the same loops the incumbent is providing analog voice service, regardless of loop length."²³ CIX itself asserted that line sharing would allow ISPs to choose from a host of DSL providers or to provide such services themselves, and ultimately compete directly with ILEC Internet offerings.²⁴

With these regulations in place, any concerns that the BOCs are failing to provide DSL-conditioned loops is not a legitimate justification to extend the Section 272 sunset. If the BOCs fail to condition loops or otherwise fail to provide access to DSL-based services and network elements as required by the Commission's regulations, then the remedy is to enforce those existing regulations, not to add another needless layer of regulation.

²¹ Advanced Services Second Report and Order ¶ 3.

²² Advanced Services Third Report and Order ¶ 4.

²³ Id. ¶ 83.

²⁴ CIX Advanced Services Comments at 3-4.

D. Rather Than Enhancing Innovation And Competition,
Extension Of The Sunset Will Harm Consumers And
Stifle The Introduction Of Advanced Services

The Commission previously declared its commitment to “ensuring that [ILECs] are able to make their decisions to invest in, and deploy, advanced telecommunications services based on market demand and their own strategic business plans, rather than on regulatory requirements.”²⁵ Similarly, the Commission has recognized “the benefits of a flexible, regulatory framework that would allow the BOCs, consistent with the public interest, to structure their operations as they see fit in order to maximize efficiencies and thus provide greater benefits to consumers.”²⁶ The Commission is now presented with a golden opportunity to let market forces, rather than regulatory requirements, prevail. If the Commission does not allow Section 272(f)(2) to sunset as scheduled, the structure of the BOCs information services offerings will be dictated by regulatory fiat rather than by the market and any BOCs’ own business plans.

As the Commission has recognized, structural separation imposes “direct costs on the BOCs resulting from duplication of facilities and personnel, limitations on joint marketing, and deprivation of economies of scope.”²⁷ Extension of the

²⁵ Advanced Services First Report and Order 14 FCC Rcd. at 4763 ¶ 3; see also Advanced Services Second Report and Order ¶ 2.

²⁶ In the Matter of Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services, CC Docket No. 95-20, 1998 Biennial Regulatory Review—Review of Computer III and ONA Safeguards and Requirements, CC Docket No. 98-10, Further Notice of Proposed Rulemaking, FCC 98-8 (“Computer III Further Remand FNPRM”) at ¶ 57 (rel. Jan. 30, 1998).

²⁷ Computer III Further Remand FNPRM at ¶ 47.

sunset could make it prohibitively expensive for ILECs to offer a number of innovative services, and to introduce services in new segments of the market. In 1995, U S WEST conducted an internal study of the one-time costs that would be incurred if it were to create a fully separate subsidiary whose sole purpose was to deliver information services to the public.²⁸ This study concluded that the one-time costs of establishing such a subsidiary would be between \$59 million and \$90 million.²⁹ Ultimately, the impact of structural separation would be experienced by customers in the form of delays in the introduction of information services and increased prices for such services.³⁰

Indeed, the Commission has explicitly recognized that “the introduction of new information services by the BOCs [has been] slowed or prevented altogether by structural separation, thus denying the public the benefits of innovation.”³¹

U S WEST’s National Directory Assistance product is a prime example of a product that would not have been introduced in the marketplace under structural separation. This product had been very well received by consumers, and it was only U S WEST’s and Ameritech’s introduction of a national directory assistance product that forced AT&T and MCI to follow suit, thus benefiting all consumers.

²⁸ See Attachment A, Structural Separation of Enhanced Service Offerings, a U S WEST internal study prepared by U S WEST Management Information Services.

²⁹ Id. at 4.

³⁰ Id. at 8-9.

³¹ Computer III Further Remand FNPRM at ¶ 47.

If Section 272 is allowed to sunset, U S WEST would likely offer a number of other innovative products. These include, for example, products that provide: (1) category searches or yellow page type searches for customers who do not know the name of or which business that they want in a certain area; (2) concierge services for customers that would include making reservations for various activities, securing tickets for concerts, sporting events and the like, and providing other such personal services within a specific geographic area; (3) driving directions for customers within certain areas, provided by operators using maps and other data, while talking directly with customers; and (4) text messaging where an operator will record messages in a computer database, in text, for later retrieval by or delivery to the recipient.

Deregulation and the competitive conditions it brings to the marketplace are critical to ensuring the introduction of new products and services. Rather than perpetuating another layer of regulation, the Commission should look to enforce its existing regulations, and have faith in these competitive market forces. An extension of Section 272's requirements is not necessary to ensure competition in the interLATA information services market, and will only stifle the introduction of new services to all segments of the market. Accordingly, the Act compels a conclusion that the Commission should allow Section 272(f)(2) to sunset as scheduled.³²

³² See Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 § 706 (1996), codified at 47 U.S.C. § 157 note; 47 U.S.C. §160, 161.

II. THE COMMISSION SHOULD NOT EXTEND THE SECTION 272
SUNSET WITH RESPECT TO OUT-OF-REGION INTERLATA
INFORMATION SERVICES, SINCE NOT EVEN THE PETITIONERS
HAVE SUGGESTED THAT SUCH AN EXTENSION IS DESIRABLE

Not even the Petitioners have suggested that continued application of Section 272 with respect to out-of-region, interLATA information services is necessary, or even desirable. The BOCs have no market share whatsoever outside of their regions, and there is simply no basis for the Commission to impose a 272 requirement to such out-of-region activities.

Respectfully submitted,

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EXHIBIT A

Structural Separation of Enhanced Service Offerings

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Preface

U S WEST Management Information Services (MIS) is a specialized internal organization operating as a business unit. Its mission is to provide information technologies services to assist U S WEST subsidiaries in satisfying their business requirements through value-added technology solutions. MIS promotes the use of established corporate and industry technology standards as well as specialized technology needs of our customer base.

This paper was co-authored by Mr. Ronald M. Trasky and Mr. Joseph J. Dolac of U S WEST Management Information Services. Both are Advanced Members of the Technical Staff and are Project Mangers responsible for a variety of Wide Area and Local Area Network projects and related activities.

Mr. Trasky has 27 years experience in the fields of telephony and information services.

This experience has ranged from the installation of telephone cabling systems through the design and implementation of a 1600 node Wide Area Network for U S WEST Business Resources, Inc. His most recent endeavors have centered around the Client/Server arena. He is currently enrolled in the doctoral program at the Graduate School of Social Work, University of Denver.

Mr. Dolac has 27 years of experience in the information services field. This experience has progressed from application programming, through Main Frame Systems Engineering, to Wide Area and Local Area Network design. He was responsible for the network design and implementation of two U S WEST robotics warehouses. His current activities have focused on the emerging technologies within the desktop and Local Area Network environments.

Both Mr. Dolac and Mr. Trasky have experience in similar types of business planning. Mr. Trasky, during the design of the previously mentioned WAN, was required to obtain costs and configurations before implementation was begun. Similarly, Mr. Dolac had the same requirements when designing the LAN and WAN components for the robotic warehouses.

Special information was obtained from the Subject Matter Experts listed in Appendix IV.

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1. Executive Summary

This paper is presented to the CEI (Comparably Efficient Interconnection) Team for the purpose of delineating the costs which may be incurred in establishing a structurally separate entity whose sole purpose is the delivery of various enhanced services to the general public.

The focus of our efforts is to define the internal, administrative requirements rather than the actual enhanced service. While we believe the equipment and personnel in direct support of an enhanced service are dedicated to that service and, hence, do not constitute an incremental cost to structural separation, the infrastructure equipment and support personnel are shared with other, non-enhanced, services and, therefore, cannot be reallocated to the new organization.

Two options are presented concerning the housing of the new entity. The first option entails new construction while the second concerns leasing of an existing facility. Both cost estimates are predicated on the facility being located in the City and County of Denver.

The estimated costs, with the new construction option are in excess of \$90,000,000; with the leasing option, \$58,000,000.

Except where noted, all price quotes have been obtained from U S WEST authorized suppliers or from suppliers that U S WEST Management Information Services has used for specialized needs.

The configurations and costs detailed in Appendices I - IV are to be used for planning purposes only and should not be considered as final.

2. Introduction

In October, 1994 California's Ninth Circuit Court of Appeals overturned the Federal Communications Commission's (FCC) ruling of Computer Inquiry III (CI-III), which essentially states that the RBOCs (Regional Bell Operating Companies) need not form structurally separate entities for the purpose of offering enhanced services and that non-structural safeguards were sufficient to prevent unfair competitive practices. In overturning CI-III, the Court re-instated Computer Inquiry II (CI-II), which requires structural separation. In November, 1994 the RBOCs filed, with the FCC, a Joint Contingency Petition for Interim Waiver of CI-II rules. This temporary waiver was granted by the FCC in January, 1995. On February 23, 1995 the FCC issued a Notice of Proposed Rule Making (NPRM) inviting responses to any or all areas addressed. Our response will be presented on April 7, 1995.

U S WEST Management Information Services (MIS) was originally tasked with preparing a "white" paper which quantifies, from a technological cost perspective, the impact this structural separation would have on the general public. This has since been expanded to include both the facilities and support personnel needed to establish this entity.

MIS has endeavored to include as much detail as is reasonable in establishing the potential effects of this structural separation. In the Local Area (LAN) and Wide Area (WAN) Network arenas, we have used a combination of standardized equipment currently in use by MIS or configurations recommended by our resident Subject Matter Experts (SMEs). In estimating construction and lease costs, we drew upon the expertise of our own Facilities Management Group along with U S WEST Business Resources, Inc. Real Estate Division. Based upon the parameters under which this document was composed, we believe these costs are complete and accurate.

3. Assumptions

The following parameters were used in determining construction and lease costs:

- The building will be a 10 story structure with a basement. Each floor will accommodate 250 persons with 180 square feet of work station space per person. The assumed floor plan is for a rectangular shaped building 300 feet in length and 180 feet in depth. This allows for an additional 20% of floor space for support and circulation areas.
- Included is a 2,500 square foot, two story glass enclosed entry atrium.
- A 5,400 square foot mechanical penthouse is included on the roof. The penthouse is steel framed with an exterior insulated finish system.
- The building is composite steel frame with architectural precast panels for the exterior skin. At each elevation a 60 foot wide curtain wall area for architectural effect is included. Punch windows are used and are projected to be 25% of the precast skin area.
- Interior finishes for floors 1 through 10 are medium level quality with an open landscape office concept.
- The basement data center is assumed to be similar to the U S WEST Management Information Services facility, located at 181 Inverness Drive West, Englewood, Colorado.
- The site area is assumed to be 914,760 square feet (21 acres). This allows sufficient surface parking area for 2,000 vehicles at 350 square feet per vehicle with approximately 20% of the site area reserved for open space/landscape areas.
- The site is assumed to be a balanced grade condition with the provision of utilizing the additional soil material generated from the basement excavation.
- For the purposes of planning, the site is assumed to be located in the City and County of Denver.
- Construction is to begin on or about January 1, 1996.

3. Assumptions (continued)

The following assumptions were used in determining desktop/network configurations and discounts:

- Entity has a staffing level of 2,500 employees.
 - Entity consists of one (1) central site and seven (7) satellite locations.
 - Dial in requirements were for 100 concurrent users at the central site utilizing three (3) T1 connections.
 - Assets will not be transferred from existing U S WEST entities.
 - Entity will be located in new or leased premises which do not have existing internal or state-of-the-art cable plants or data center facilities.
 - Personnel will consist of a combination of new hires and employees transferred from existing U S WEST entities.
-

4. Hardware and Software Overview

Desktop Hardware and Software

The Office Automation configurations are based upon state-of-the-art hardware and software. All of the hardware configurations are in use at MIS and have been found to be both reliable and cost-effective. The Microsoft® and LOTUS® suite of products are generally accepted as the standard for Office Automation products and are also in use at MIS.

We believe that in equipping the staff of this entity with these products, we have provided reliability along with a reasonable price-for-performance environment.

Local Area Network Hardware and Software

The Local Area Network (LAN) configuration proposed is essentially the same as that being used at MIS. We have found it to be reliable and cost-effective in providing communications for mission critical applications. It allows for expansion when needed, lower maintenance costs, ease-of-use, security, and recoverability. It is by no means the only configuration possible and modifications can be made, where appropriate, to accommodate specialized needs.

Wide Area Network Hardware and Monitoring/Support Equipment

The Wide Area Network (WAN) configuration outlined is sufficient to handle the infrastructure communication needs for an entity of this size. We have postulated one (1) central site, which will house at least 90% of the staff, and seven (7) satellite locations. The configuration allows for direct, T1 connection to each site with expansion capabilities for an additional three (3), undefined locations. The monitoring and support equipment is adequate for a network and support staff of the size documented. The network hardware and support equipment were recommended by our resident SMEs.

Support Personnel

The management and support personnel are the minimum we believe commensurate to efficiently handle the office complex, Wide Area and Local Area Networks. The salaries were determined by local market values with 30% added for the standard U S WEST benefits package.

Spare Equipment

We believe this equipment is necessary to ensure minimal downtime should outages occur. The majority of this hardware will be stored at the central site, while the remainder will be disbursed to the satellite locations. While it is not absolutely necessary to purchase these items at start up, they should be stockpiled prior to the warranty expiration for all newly purchased hardware.

Installation Costs

Installation timeframes and costs are based up our experience and the currently hourly charge MIS uses in bidding contracts.

Private Branch Exchange (PBX)

The Private Branch Exchange (PBX) configurations are based upon staffing levels at the central site. Although there will be satellite locations, the configuration for the PBX standardizes the type of usage and cost for the approximately 250 employees using other equipment at the satellite locations. The current PBX configuration can be modified to accommodate the actual number of users or needs of the separate entity.

Uninterruptable Power Supply

The central Uninterruptable Power Supply (UPS) has been scaled to support the building's data center and all communications closets within the building. The purpose of this system is, in the event of a power outage, to clean and provide power for approximately twenty minutes, for the following on-line communications equipment: (a) external network (i.e., Wide Area Network), (b) Local Area Network, and (c) PBX equipment. Cost of this unit was determined by the amount of on-line power that would be necessary to backup and support, for a limited time, a data center and all the associated critical communication hardware.

The remote UPS' have been scaled to support the communications equipment at the seven satellite sites. These units will provide the on-site backup power for the satellite network and server communications equipment. The requirement for on-line backup power is twenty minutes at the satellite sites and is a requirement that is congruent with the twenty minute backup at the central site building.

Internal Building Cable Plant

This cable plant design is based on existing communication requirements for fire safety, bandwidth, compatibility, length, and standards to connect and support 2500 users. This design provides connectivity for the following, between floors, both vertical and horizontal, the Local Area Network, and access from the main point-of-presence to all external networks, Intra-Lata, and Inter-Lata carriers.

The labor to install the cable plant design at the central site was obtained through a local cable contractor who has an established reputation at all U S WEST Market Units in the Colorado and Wyoming region. Installation costs are based on "bid" work which is standard for all new installations.

Satellite locations will have minimal cable plant installation requirements and will be installed by a local contractor using the same or similar labor "bid prices". The number of employees at each satellite location has not been established therefore, no labor installation costs have been included for the satellite locations.

Administrative Support

These are the requirements that we estimate will be needed to supply administrative support for the staff of this organization. They will handle all salary, benefit, time reporting, etc., needs. It is possible, depending on the design methodology used, that this equipment may also process customer billing information and invoice generation.

Voice/Data Circuits

The design of the voice and data circuits is a standard configuration based on the number of anticipated concurrent network data users and the 2500 voice users doing sales, marketing, financial, and internal and external support. Should growth or downsizing occur this configuration, with minor changes, could strategically support the network direction of the organization.

Building Construction/ Finishing, Automation/Security and Facilities Lease

The costs documented are based upon construction and/or leasing within the City and County of Denver. They are our best estimates given the proposed staffing levels and mission goals of this organization. Exclusions are outlined in Appendix III.

5. Conclusion

The preceding sections have defined the costs MIS estimates will be incurred if U S WEST is required to implement structural separation. While the costs themselves are substantial and will need to be recovered in some manner, a greater impact will be felt by the general public through either service disruption or the inability of U S WEST to deliver more cost effective, innovative and efficient services.

In a reorganization of this size, it is inevitable that service disruptions will occur; especially if the time frame imposed through regulation is short. Undoubtedly means will be found that will circumvent most of these outages, however, some will occur. Of greater concern is the delay or possible non-delivery of new services.

Planning, research, and development are traditionally the largest consumers of resources in the life-cycle of new ideas. In forming a new entity, personnel and funding priorities will shift from these arenas to that of merely keeping existing services operating at acceptable levels. It is conceivable that new products may be delayed for an inordinate amount of time or completely abandoned, thereby denying the public access to potentially more cost-efficient and diverse services.

Appendices

Enhanced Services Structural Separation
Appendix I
Summary of Costs

Incremental Costs

Table 1.1 - Desktop Hardware and Software	\$9,784,125.00	
Table 1.2 - Local Area Network Hardware and Software	\$1,440,910.00	
Table 1.3 - Wide Area Network Hardware	\$1,115,588.00	
Table 1.4 - Monitoring and Support Equipment	\$566,798.00	
Table 1.6 - Spare Equipment	\$293,006.00	
Table 1.7 - Installation Costs	\$1,023,572.00	excluded from tax
Table 1.8 - Private Branch Exchange (PBX)	\$2,022,104.00	
Table 1.9 - Uninterruptable Power Supply (UPS)	\$628,924.00	
Table 1.10 - Internal Cable Plant	\$382,888.00	
Table 1.11 - Administrative Support	\$1,049,215.00	
Table 1.12 - Voice and Data Circuits	\$10,642.00	

Equipment PreTax Cost	\$18,317,772.00
Estimated Sales Tax - 3.8%	\$657,179.60
Equipment Cost	\$18,974,951.60

Table 2.1 - Building Construction & Finishing	\$69,298,647.00	
Cost per square foot \$75.25		
Table 2.2 - Building Automation and Physical Security	\$301,339.00	
Table 2.3 - Facilities Lease (1st year)		\$37,716.2

Operating Costs

Table 1.5 - Support Personnel	\$2,086,500.00
Table 1.12 Voice and Data Circuits	
Flat Rate Business Circuits (annual)	\$16,800.00
T1 circuit costs (annual)	\$119,340.00

Summary Costs with New Construction	\$90,787,577.60
Summary Costs with Facilities Lease	

\$58,913.1

**Enhanced Services Structural Separation
Appendix II
Equipment Cost Estimates**

Appendix II contains the costs entailed with the establishment of a separate entity within the U S WEST family of companies for the purpose of offering enhanced services to the general public.

These figures represent costs that may be incurred to administratively support the organization in its mission goals.

The following assumptions were used as the basis for determining configurations and discounts:

- Entity has a staffing level of 2,500 employees.
- Entity consists of one (1) central site and seven (7) satellite locations.
- Dial in requirements were for 100 concurrent users at the central site utilizing three (3) T1 connections.
- ~~Assets will not be transferred from existing U S WEST entities.~~
- Entity will be located in new or leased premises which do not have existing internal or state-of-the-art cable plants or data center facilities.
- Personnel will consist of a combination of new hires and employees transferred from existing U S WEST entities.

The ensuing general guidelines should be used when reviewing the attached tables:

- Unless otherwise noted, all price quotes have a minimum of two (2) bids.
- For planning purposes, all price quotes are the highest submitted.
- Unless otherwise noted, all price quotes include volume and U S WEST discounts.
- All equipment is purchased. Lease or rental options have not been included.
- All price quotes are valid for 30 days from date of request.
- The rationale or certifications for each configuration are detailed in Appendix IV, Reference Index.

Enhanced Services Structural Separation Appendix II Equipment Cost Estimates

Table 1.1 - Desktop Hardware and Software

Contains the detailed configurations and costs for each desktop along with its associated software.

Table 1.2 - Local Area Network Hardware and Software

Contains the complete configuration required to establish a 2500 node LAN. It includes file servers, Intelligent hubs, Operating Systems, and hardware necessary to backup all data residing on this network.

Table 1.3 - Wide Area Network Hardware

Contains all hardware necessary to support a WAN consisting of one (1) central site and seven (7) satellite locations. Additionally, it contains the configuration to support 100 concurrent dial-in users at the central site.

Table 1.4 - Monitoring and Support Equipment

Contains all the hardware, software, and miscellaneous tools needed to maintain, monitor, and repair either the Local or Wide Area Networks.

Table 1.5 - Support Personnel

Details the staff required to perform End User support, Local and Wide Area Network support along with the management for each area.

Table 1.6 - Spare Equipment

This equipment is required to ensure minimal down-time during any network outage. They are essentially "hot-spares" to be used in emergency situations.

Table 1.7 - Network Installation

Contains our "best guess" estimate of the cost to install each device. It is based on hourly rates used by U S WEST MIS.

Table 1.8 - Private Branch Exchange (PBX)

Contains the total costs for both equipment and installation of the internal telephone and voice mail systems.

Table 1.9 - Uninterruptable Power Supply (UPS)

Contains costs for both the central and remote power supply configurations.

Table 1.10 - Internal Cable Plant

Contains the equipment costs for both voice and data networks within the central site.

Table 1.11 - Administrative Support

Details the hardware and software costs involved in supplying administrative support systems, i.e., Payroll, Benefits, Internal Help Desk, etc.

**Enhanced Services Structural Separation
Appendix II
Equipment Cost Estimates**

Table 1.12 - Voice/Data Circuits

Details the hardware and software costs involved in supplying Wide Area Connectivity with 7 satellite locations.

Table 1.1 - Desktop Hardware and Software

Product	Quantity	Cost per Unit	Total	Comments
PowerPC Macintosh 8100	375	\$3,193.00	\$1,193,625.00	See Note 1
8 megabyte RAM upgrade	375	\$320.00	\$123,750.00	
Apple 14" Color Monitor	375	\$279.00	\$104,625.00	
Apple Design Keyboard II	375	\$72.00	\$27,000.00	
Asante 10BaseT Adapter	375	\$47.00	\$17,625.00	
		\$3,911.00	\$1,466,625.00	
Compaq Deskpro XE	2125	\$2,236.00	\$4,751,500.00	See Note 1
8 megabyte RAM upgrade	2125	\$503.00	\$1,068,875.00	
Compaq 14" SVGA monitor	2125	\$336.00	\$714,000.00	
3COM 3C509B 10BaseT Adapter	2125	\$85.00	\$180,625.00	
		\$3,160.00	\$6,715,000.00	
Microsoft Office 4.2 for Windows	2125	\$263.00	\$558,875.00	See Note 2
Word Processing (Word 6.0)		N/A		
Financial Spreadsheets (Excel 5.0)		N/A		
Presentation Software (PowerPoint 4.0)		N/A		
		\$263.00	\$558,875.00	
Microsoft Office 4.2 for Macintosh	375	\$263.00	\$98,625.00	
Word Processing (Word 6.0)		N/A		
Financial Spreadsheets (Excel 5.0)		N/A		
Presentation Software (PowerPoint 4.0)		N/A		
		\$263.00	\$98,625.00	
LOTUS Notes 3.3	2500	\$326.00	\$815,000.00	See Note 3
Electronic Mail		N/A		
Document Database		N/A		
FAX Send/Receive		N/A		
		\$326.00	\$815,000.00	
LOTUS Organizer 2.0	2500	\$52.00	\$130,000.00	See Note 3
Personal Scheduling		N/A		
Group Scheduling		N/A		
Conference Scheduling		N/A		
		\$52.00	\$130,000.00	
Page Total			\$9,784,125.00	

Table 1.2 - Local Area Network Hardware and Software

Product	Quantity	Cost per Unit	Total	Comments
ODS Intelligent Hubs				See Notes 4 & 5
12 Slot Infinity Hub	10	\$1,596.00	\$15,960.00	
EBP Ethernet Backplane	10	\$1,120.00	\$11,200.00	
CBP Control Backplane	10	\$1,547.00	\$15,470.00	
PS1000 Power Supply	20	\$2,408.00	\$48,160.00	
FINC 4-040-BT RMON/SNMP Mgmt Card	10	\$9,380.00	\$93,800.00	
1094-BT 32 Port, RJ45 10BaseT card	110	\$4,480.00	\$492,800.00	
		\$20,531.00	\$677,390.00	
File Servers				See Note 4
Compaq Proliant 2000 5/66 Model 4200A	10	\$13,714.00	\$137,140.00	
32 megabyte ECC SIMM Upgrade	30	\$1,929.00	\$57,870.00	
128 megabyte expansion board	10	\$312.00	\$3,120.00	
2.2 gigabyte "hot plug" hard drive	50	\$1,490.00	\$74,500.00	
28.8kps modem	10	\$416.00	\$4,160.00	
NEC 5FGE Multisync Monitor	10	\$1,015.00	\$10,150.00	
EISA Bus Master 10BaseT Adapter	20	\$676.00	\$13,520.00	
		\$19,552.00	\$300,480.00	
LAN Operating System				See Note 4
Novell Netware 3.12 - 250 User License	10	\$7,602.00	\$76,020.00	
Intel Storage Express LAN Backup System				See Note 6
Intel Storage Express XLC Auto	3	\$10,293.00	\$30,879.00	
8 megabyte upgrade kit	9	\$493.00	\$4,437.00	
Autochanger Magazine, DDS-2 Tape Kit	3	\$210.00	\$630.00	
DDS-2 DAT TPE/Cinr Kit	3	\$172.00	\$516.00	
4-8 gigabyte peripheral DAT Box	3	\$5,867.00	\$17,601.00	
4mm DAT Autochanger DDS-2	3	\$5,085.00	\$15,255.00	
4-8 gigabyte DDS-2 Drive Upgrade	3	\$2,284.00	\$6,852.00	
4mm DAT, 4 gigabyte	135	\$30.00	\$4,050.00	
		\$24,434.00	\$80,220.00	
Laser LAN Printers				See Note 6
HP LaserJet 4Si, L17,P5	100	\$2,899.00	\$289,900.00	
		\$2,899.00	\$289,900.00	
Color Laser LAN Printers				See Note 6
HP Color LaserJet L2	3	\$5,640.00	\$16,920.00	
		\$5,640.00	\$16,920.00	
Page Total			\$1,440,910.00	

APPENDIX B

The Economics of Cross Subsidization

I. Industry Concerns

One of the primary arguments in favor of structural separation of enhanced services from basic service is that it eliminates the problem of assigning joint costs. Regulatory experience is replete with examples where joint production resulted in cross subsidization between two related products with the end result being large welfare losses. One need look no further than the cross subsidization between local basic service and long distance telephone service that resulted in large welfare losses and ultimately precipitated the structural dismemberment of AT&T. Even if there were substantial cost complementarities or economies of scope between local and long distance service, the distortionary impact of long distance prices well in excess of long run marginal costs subsidizing local service resulted in large welfare losses,²¹ far in excess of any likely gains from joint production.²²

The obvious question is whether we have an analogous situation here between local basic service and enhanced services. In particular, MCI, among others, poses the question of whether the potential distortionary effects of cross subsidization overshadow any cost savings from joint production. MCI, as a potential competitor in the enhanced service market, expresses their concerns

²¹ See Griffin, James M., "The Welfare Implications of Externalities and Price Elasticities for Telecommunications Pricing," *Review of Economics and Statistics*, February, 1982, 59-66 and Rohlfs, Jeffrey, "Economically Efficient Bell-System Pricing," Bell Laboratory Discussion Paper No. 138, January 1979.

²² The evidence on cost subadditivity is mixed with Heckman, James J., "A Test for Subadditivity of the Cost Function with an Application to the Bell System," *American Economic Review*, September 1984, 615-623, finding evidence of mild cost subadditivity, while other studies such as by Roller, Lars-Hendrik, "Proper Quadratic Cost Function with an Application to the Bell System," *Review of Economics & Statistics*, May 1990, 202-210, rejecting cost subadditivity. Cost subadditivity involves notions of both economies of scale and scope whereby one firm can supply the market at lower cost than two or more firms.

that cross subsidization could forestall their ability to compete in the enhanced services market.²³ While MCI has not elaborated their theory of how cross subsidization would harm them, the logic would seem to proceed as follows. Through integrated operations, the former Bell Operating Companies (BOCs) will be able to shift costs of enhanced services into the local service rate base, earning excessive returns which would then be used to subsidize the cost of providing enhanced services. With the BOCs operating at an artificial cost advantage in the enhanced service market,²⁴ MCI and other ESPs will be unable to compete. Under this scenario, not only would MCI and other ESPs be harmed, but economic efficiency would be severely impaired. Just as artificially high prices in excess of the long run marginal costs of local service would produce welfare losses in the local service market, artificially low prices, below costs in the enhanced service market, could also produce potentially large welfare losses in the enhanced service market. Paradoxically, the BOCs would attain a monopoly in enhanced services by setting prices below costs, thereby precluding the entry of companies such as MCI with a reputation for being an aggressive competitor.

The purpose of Appendix B is to examine the theoretical conditions under which the above cross subsidization scenario might occur and to examine the likely welfare effects of manipulation of joint costs. Section II identifies three necessary conditions for cross subsidization to occur and considers whether those conditions occur in this situation. It is shown that at least one (and possibly all three) of the necessary conditions fails to be satisfied, thereby vitiating the scenario outlined above. But having shown that the above cross subsidization scenario cannot occur, does not prove that the ability to manipulate joint costs (by loading the costs of enhanced services into the cost of local service) is benign. Section III examines the welfare effects of raising local service rates through manipulation of joint costs. Specifically, Section III asks what is the welfare loss in the basic service market, given the likely scope for joint cost manipulation.

²³For example, see the May 11, 1992 memo from Thomas Campbell on behalf of MCI to the Arizona Corporation Commission, Utilities Division.

²⁴For example, see the May 11, 1992 memo from Thomas Campbell on behalf of MCI to the Arizona Corporation Commission, Utilities Division.

Table 1.3 - Wide Area Network Hardware

Product	Quantity	Cost per Unit	Total	Comments
Cisco Systems Router				See Notes 5 & 7
Cisco 7000 Router 7-Slot	20	\$14,925.00	\$298,500.00	
4-Port Serial Interface Processor	20	\$6,750.00	\$135,000.00	
6-Port Ethernet Interface Processor	20	\$12,000.00	\$240,000.00	
High-Density V.35 DTE Male Cable	20	\$75.00	\$1,500.00	
		\$33,750.00	\$675,000.00	
Access-T-201 T1/FT1 Access DSU/CSU				See Notes 4 & 5
2 EIA 530 DTE Ports		N/A		
Integral T1 CSU		N/A		
AC Power Supply		N/A		
Supervisory and Craft Interface ports		N/A		
Cable EIA to V.35 DCE-DTE	40	\$104.00	\$4,160.00	
Cable DA-15F to RJ48 Shielded	40	\$52.00	\$2,080.00	
		\$2,006.00	\$80,240.00	
Dial In Facilities				See Notes 5 & 8
USRobotics 16 Slot E/T SNMP Chassis	4	\$4,345.00	\$17,380.00	
USRobotics Dual T1 NIC/NAC Set	4	\$3,060.00	\$12,240.00	
USRobotics Quad V.34 Digital Modem Set	25	\$2,794.00	\$69,850.00	
USRobotics TC Manager/SNMP Software	1	\$2,599.00	\$2,599.00	
19 inch Fan Tray	4	\$292.00	\$1,168.00	
Cubox System 1010 Cabinet	1	\$2,543.00	\$2,543.00	
ERS/FT,ISA Dual PS,MUX, BC series	3	\$2,846.00	\$8,538.00	
ERS/FT,ISA Dual PS,MUX, QL series	4	\$2,996.00	\$11,984.00	
BC 4035DX2 for DECNet	20	\$2,227.00	\$44,540.00	
QL 4222, Dual 486DX2-50 for Novell	40	\$3,881.00	\$155,240.00	
IES Supervisor	1	\$1,125.00	\$1,125.00	
IES Module	7	\$371.00	\$2,597.00	
Cubox Management Software	1	\$466.00	\$466.00	
QL4001 Installation Kit	1	\$75.00	\$75.00	
BC Series Installation Kit	1	\$37.00	\$37.00	
BC4045, 486DX2-66, 2x4mb SIMMS	4	\$2,246.00	\$8,984.00	
250 Mb IDE drive	6	\$201.00	\$1,206.00	
BC 4035DX2, 486DX2/66 for CMS server	1	\$2,227.00	\$2,227.00	
Netware 3.12 runtime	4	\$329.00	\$1,316.00	
ReachOut Host Software	100	\$66.00	\$6,600.00	
ReachOut Viewer Software	100	\$59.00	\$5,900.00	
SCSI Controller, 32-bit EISA	4	\$502.00	\$2,008.00	
ERS/FT MUX to MUX cable	7	\$37.00	\$259.00	
DB9 male to DB9 female cable	100	\$11.00	\$1,100.00	
RJ45 male to RJ45 male cable	25	\$11.00	\$286.00	
		\$35,366.00	\$360,348.00	
Page Total			\$1,115,588.00	

Table 1.4 - Monitoring and Support Equipment

Product	Quantity	Cost per Unit	Total	Comments
SPARCstation 20 model 50	10	\$3,512.00	\$35,120.00	See Notes 5 & 7
17" Color Monitor		N/A		
535 megabyte hard drive		N/A		
32 megabytes RAM		N/A		
644 megabyte internal SunCD 2 Plus	10	\$312.00	\$3,120.00	
		\$9,824.00	\$98,240.00	
Distributed & Portable Network Sniffers				
Sniffer Expert Ethernet Board and Software	2	\$15,500.00	\$31,000.00	See Notes 5 & 7
Dolch Portable 66MHz	2	\$7,350.00	\$14,700.00	
10BaseT, TCP/IP, Monitor/Analysis	10	\$7,495.00	\$74,950.00	
Sniffmaster for X, CD-ROM	1	\$4,995.00	\$4,995.00	
		\$35,340.00	\$125,645.00	
Tools and Supplies				
JTK-5000 LAN & Computer Toolkit	5	\$1,385.00	\$6,925.00	See Note 8
JTK-4000 Fiber Termination Toolkit	1	\$2,124.00	\$2,124.00	
JTK-5 Network Toolkit	2	\$919.00	\$1,838.00	
Fiber Solution Kit	1	\$1,595.00	\$1,595.00	
Framescope 802 Protocol Analyzer	1	\$4,485.00	\$4,485.00	
Wirescope 100 Cat 5 Cable Verification	1	\$4,350.00	\$4,350.00	
Miscellaneous network tools and supplies	N/A	\$5,000.00	\$5,000.00	
		\$19,858.00	\$26,317.00	
Network Management Software				
LANVision Hub Tool for Sun Workstation	1	\$3,200.00	\$3,200.00	See Notes 5 & 7
CiscoWorks 2.0.2 for SUNNET Manager	1	\$7,496.00	\$7,496.00	See Notes 5 & 7
SUNNET Manager v2.2.1	10	\$4,278.00	\$42,780.00	See Notes 5 & 7
		\$14,974.00	\$53,476.00	
LapTop Computers				See Note 7
IBM ThinkPad 755CD model 810	5	\$7,260.00	\$36,300.00	
IBM 8 megabyte RAM upgrade	5	\$596.00	\$2,980.00	
		\$7,856.00	\$39,280.00	

Page Total **\$342,958.00**

Table 1.4 - Monitoring and Support Equipment (continued)

Product	Quantity	Cost per Unit	Total	Comments
Automated Network Alert System				See Note 5
Smarttrap 3278 software	1	\$9,500.00	\$9,500.00	
2-line Color Display	60	\$3,295.00	\$197,700.00	
8-port Buffered Hostless Board	2	\$995.00	\$1,990.00	
Message Control Software	1	\$1,900.00	\$1,900.00	
Messenger	1	\$2,500.00	\$2,500.00	
3278 attach card	2	\$1,295.00	\$2,590.00	
Training	5	\$900.00	\$4,500.00	
Compaq Deskpro XE	1	\$2,236.00	\$2,236.00	
8 megabyte RAM upgrade	1	\$503.00	\$503.00	
Compaq 14" SVGA monitor	1	\$336.00	\$336.00	
3COM 3C509B 10BaseT Adapter	1	\$85.00	\$85.00	
		\$23,545.00	\$223,840.00	

Page Total **\$223,840.00**

Table 1.5 - Support Personnel

Category	Staff	Annual Salary	Annual Salary Plus Benefits	Comments
Network Manager	1	\$70,000.00	\$91,000.00	See Note 9
Senior Project Manager	2	\$60,000.00	\$156,000.00	See Note 9
Network Provisioner	1	\$35,000.00	\$45,500.00	See Note 9
Network Engineer	2	\$60,000.00	\$156,000.00	See Note 10
Network Support Technician	4	\$55,000.00	\$296,000.00	See Note 10
Local Area Network Engineer	2	\$55,000.00	\$143,000.00	See Note 9
Local Area Network Administrator	1	\$45,000.00	\$58,500.00	See Note 9
End User Support Technician	10	\$40,000.00	\$520,000.00	See Note 9
Voice Support Technician	2	\$45,000.00	\$117,000.00	See Note 10
Help Desk Supervisor	1	\$40,000.00	\$52,000.00	See Note 15
Help Desk Staff	7	\$30,000.00	\$273,000.00	See Note 15
Building Engineer	2	\$55,000.00	\$143,000.00	See Note 20
Building Specialist	1	\$35,000.00	\$45,500.00	See Note 20
			\$2,086,500.00	

Page Total

\$2,086,500.00

Table 1.6 - Spare Equipment

Product	Quantity	Cost per Unit	Total	Comments
				See Notes 5 & 7
CiscoSystems Router				
Cisco7000 Router, 7-Slot	2	\$14,925.00	\$29,850.00	
4-Port Serial Interface Processor	2	\$6,750.00	\$13,500.00	
6-Port Ethernet Interface Processor	2	\$12,000.00	\$24,000.00	
High-Density V.35 DTE Male Cable	2	\$75.00	\$150.00	
		\$33,750.00	\$67,500.00	
				See Notes 5 & 7
ODS Intelligent Hubs				
12 Slot Infinity Hub	2	\$1,596.00	\$3,192.00	
EBP Ethernet Backplane	2	\$1,120.00	\$2,240.00	
CBP Control Backplane	2	\$1,547.00	\$3,094.00	
PS1000 Power Supply	4	\$2,408.00	\$9,632.00	
FINC 4040-BT RMON/SNMP Mgmt Card	2	\$9,380.00	\$18,760.00	
1094-BT 32 Port, RJ45 10BaseT card	22	\$4,480.00	\$98,560.00	
		\$20,531.00	\$135,478.00	
				See Notes 9 & 11
PowerPC Macintosh 8100	4	\$3,183.00	\$12,732.00	
8 megabyte RAM upgrade	4	\$330.00	\$1,320.00	
Apple 14" Color Monitor	4	\$279.00	\$1,116.00	
Apple Design Keyboard II	4	\$72.00	\$288.00	
Asante 10BaseT Adapter	4	\$47.00	\$188.00	
		\$3,911.00	\$15,644.00	
				See Notes 9 & 11
Compaq Deskpro XE	21	\$2,236.00	\$46,956.00	
8 megabyte RAM upgrade	21	\$503.00	\$10,563.00	
Compaq 14" SVGA monitor	21	\$336.00	\$7,056.00	
3COM 3C509B 10BaseT Adapter	21	\$85.00	\$1,785.00	
		\$3,160.00	\$66,360.00	
				See Notes 4 & 5
Access-T-201 T1/FT1 Access DSU/CSU	4	\$1,850.00	\$7,400.00	
2 EIA 530 DTE Ports		N/A		
Integral T1 CSU		N/A		
AC Power Supply		N/A		
Supervisory and Craft interface ports		N/A		
Cable EIA to V.35 DCE-DTE	4	\$104.00	\$416.00	
Cable DA-15F to RJ48 Shielded	4	\$52.00	\$208.00	
		\$2,006.00	\$8,024.00	

Page Total **\$293,006.00**

Table 1.7 - Installation Costs

Product	Quantity	Cost per Unit	Total	Comments
Network Installation				
Desktop Hardware & Software	2500	\$100.00	\$250,000.00	See Notes 9 & 12
ODS Intelligent Hubs	10	\$11,200.00	\$112,000.00	See notes 10 & 13
File Server Hardware & Software	10	\$21,000.00	\$210,000.00	See Notes 9 & 12
Routers & CSU/DSU	20	\$11,200.00	\$224,000.00	See Notes 10 & 13
			\$304,600.00	
Telephone and Cable Installation				
				See Notes 5 & 14
Voice and Data cable runs	2500	\$62.50	\$156,250.00	
Innerduct runs	11	\$125.00	\$1,375.00	
200 pair feed cable runs	11	\$300.00	\$3,300.00	
48 strand fiber runs	11	\$2,650.00	\$29,150.00	
Equipment room layout and assembly	12	\$100.00	\$1,200.00	
Set, test, and designate telephones	2500	\$13.50	\$33,750.00	
Miscellaneous	1	\$1,000.00	\$1,000.00	
		\$4,251.00	\$226,025.00	
<hr/>				
Octel Maxum Installation	1		\$27,450.00	
PBX Installation	1		\$465,497.00	

Page Total \$1,023,572.00

Table 1.8 - Private Branch Exchange (PBX)

Product	Quantity	Cost per Unit	Total	Comments
Northern Telecom Meridian-1, Option 81	1	N/A	\$1,621,282.00	See notes 5 & 14
M2250 Console	1	N/A		
ACD telephones	300	N/A		
Headsets	300	N/A		
2008 Digital Telephones	2100	N/A		
Digital Voice Lines	2405	N/A		
Trunk Lines	608	N/A		
Digital Trunk Interfaces	25	N/A		
Central Office Trunks	8	N/A		
Octel Maxum with 72 ports	1	\$400,822.00	\$400,822.00	
ACD with 2 supervisor ports	1	N/A		
Rectifier	1	N/A		
			\$2,022,104.00	

Page Total \$2,022,104.00

Table 1.9 - Uninterruptable Power Supply (UPS)

Product	Quantity	Cost per Unit	Total	Comments
Central System				See notes 5 & 14
750 KVA Series XC Hybrid UPS	1	N/A	\$323,484.00	
600 KW motor generator	1	N/A		
Solid State Rectifier	1	N/A		
Solid State inverter	1	N/A		
1 year warranty	1	N/A		
3 year service agreement	1	N/A		
			\$323,484.00	
Remote System				See notes 5 & 14
American Power Conversion AP900XL	10	\$1,044.00	\$10,440.00	
900 VA rated	10	N/A		
Surge Protection	10	N/A		
Shutdown Software	10	N/A		
25 minute battery	10	N/A		
2 year replacement warranty	10	N/A		
			\$10,440.00	
UPS Generator				See notes 5 & 14
Cummins KTA 38G1 (38 liter, 12cyl diesel)	1	N/A		
1000 KiloWatt standby unit	1	N/A		
Marathon synchronous generator	1	N/A		
1000 gal. skid mounted fuel tank	1	N/A		
Outside weather enclosure	1	N/A		
Internal enclosure controls	1	N/A		
Sound attenuation within enclosure	1	N/A		
Charger and Batteries	1	N/A		
Westinghouse 2000 amp transfer switch	1	N/A		
2000 amp mainline circuit breaker	1	N/A		
			\$295,000.00	

Page Total **\$628,924.00**

Table 1.10 - Internal Building Cable Plant

Product	Quantity	Cost per Unit	Total	Comments
Cable Plant				See note 14
48 strand multi-mode fiber	3000	\$16.50	\$50,400.00	
Category 5 plenum cable	750000	\$0.28	\$210,000.00	
1/25" plenum innerduct	3000	\$3.46	\$10,380.00	
19" open bay rack	12	\$186.00	\$2,232.00	
48 port fiber optic patch panel	11	\$725.00	\$7,975.00	
RJ45 duplex faceplates	2500	\$2.25	\$5,625.00	
RJ45 jacks, category 5	2500	\$4.75	\$11,875.00	
Surface mount boxes	2500	\$2.50	\$6,250.00	
6' Category 5 patch cords	5000	\$4.60	\$23,000.00	
24 port SNMP fiber hub	11	\$2,300.00	\$25,300.00	
24 port 10BaseT slave hubs	11	\$1,175.00	\$12,925.00	
AUI cables	22	\$10.50	\$231.00	
ST fiber connectors	100	\$7.75	\$775.00	
26ga 200 pair feed cable	8000	\$1.54	\$12,320.00	
ST/ST PVC fiber optic patch cords	100	\$36.00	\$3,600.00	
		\$4,476.43	\$382,888.00	

Page Total **\$382,888.00**

Table 1.11 - Administrative Support

Product	Quantity	Cost per Unit	Total	Comments
HR, Payroll, Benefits, etc... Processor				See Notes 5 & 16
HP 9000 model T500	1	\$132,000.00	\$132,000.00	
90Mhz PA1700 CPU	5	\$36,000.00	\$180,000.00	
256Mb ECC Memory Board	7	\$25,624.00	\$186,368.00	
SCSI-2 Host Adapter	1	\$1,036.00	\$1,036.00	
HP-UX 9.04 Operating System	1	\$416.00	\$416.00	
HP-PB Expansion Module	1	\$8,400.00	\$8,400.00	
2Gb SCSI-2 Drives	5	\$9,224.00	\$46,120.00	
Model 8000R DAT Storage	1	\$2,880.00	\$2,880.00	
CDROM Expansion	1	\$736.00	\$736.00	
Miscellaneous Options	1	\$64,995.00	\$64,995.00	
		\$282,311.00	\$622,951.00	
Internal Help Desk Support				
HP 9000 model G40	1	\$13,600.00	\$13,600.00	
32Mb memory module	1	\$1,792.00	\$1,792.00	
2-8Gb DDS DAT	1	\$2,000.00	\$2,000.00	
HP-UX 9.0.16 user license	1	\$2,716.00	\$2,716.00	
SCSI-2 Host Adapter	1	\$1,036.00	\$1,036.00	
2Gb SCSI Disk Storage	2	\$2,560.00	\$5,120.00	
		\$23,704.00	\$26,264.00	
Administrative Software				
HR, Salary, Benefits, etc.	1	\$300,000.00	\$300,000.00	See Note 17
Help Desk Software	1	\$100,000.00	\$100,000.00	See Note 18
		\$400,000.00	\$400,000.00	

Page Total \$1,049,215.00

Table 1.12 - Voice/Data Circuits

Product	Quantity	Cost per Unit	Total	Comments
Non-Recurring T1 Installation	17	\$626.00	\$10,642.00	See Notes 5 & 14
Flat Rate Business Circuits (annual)	20	\$70.00	\$1,400.00	See Notes 5 & 14
T1 circuit costs (annual)	17	\$585.00	\$10,045.00	See Notes 5 & 14
			\$146,782.00	

Page Total \$146,782.00

Enhanced Services Structural Separation
Appendix III
Construction/Lease Cost Estimates

Appendix III contains the costs entailed with the establishment of a separate entity within the U S WEST family of companies for the purpose of offering enhanced services to the general public.

These figures represent costs that may be incurred during the construction of a new facility to house the enhanced services entity. It is assumed for planning purposes that the facility will need to support approximately 2500 individuals.

Exclusions:

1. Builders risk insurance.
2. Water, storm, and sanitary sewer tap and system development fees.
3. Public utility charges.
4. Public letters of credit.
5. Off-site street, traffic signalization and utility improvements.
6. Relocation of public utilities.
7. Owner's contingencies.
8. Liquidated and consequential damages.
9. Testing and inspection costs.
10. Guard Service.
11. Parking fees.
12. Contaminated or unsuitable soils identification, testing, removal and replacement.
13. Hazardous materials inspection, testing, abatement, removal, disposal, and certification.
14. Allowance for unforeseen concealed conditions.
15. Ground water dewatering systems.
16. Utility meters and vaults.
17. Primary electrical service and transformers to the building.
18. Architectural and engineering fees, design responsibility and design liability.
19. Responsibility for compliance of construction documents with applicable codes, laws, statutes and regulations.
20. Rock excavation.
21. Building identification signs.
22. Concessions and vending equipment.
23. Interior landscaping.
24. Water fountains, sculptures, artwork or other special features.
25. Furnishings, fixtures and equipment (FF&E).
26. Private communications, MATV and fire department communications systems.
27. Setting of owner's equipment.

**Enhanced Services Structural Separation
Appendix III
Construction/Lease Cost Estimates**

The following is a brief description of each table:

Table 2.1 - Building Construction & Finishing

Contains cost estimates for the base building and primary support systems.

Table 2.2 - Building Automation and Physical Security

Contains cost estimates for automation and security systems within the new facility.

Table 2.3 - Facilities Lease (1st Year)

Contains cost estimates for facility lease, add-ins, and brokerage fees.

Table 2.1 - Building Construction and Finishing

Product	Cost	Cost per Square Foot	Comments
Site Development	\$1,692,306.00	\$2.84	See Notes 5 & 20
Excavation			
Water Taps			
Sanitary Connections			
	\$1,692,306.00	\$2.84	
Office Building Core and Shell			
Sitework	\$361,945.00	\$0.61	
Concrete	\$3,692,674.00	\$6.19	
Metals	\$5,754,280.00	\$9.65	
Carpentry	\$182,493.00	\$0.31	
Thermal/Moisture Protection	\$898,126.00	\$1.51	
Doors & Windows	\$1,446,932.00	\$2.43	
Finishes	\$1,317,436.00	\$2.21	
Specialties	\$213,185.00	\$0.36	
Furnishings	\$1,024.00		
Conveying Systems	\$840,000.00	\$1.41	
Mechanical	\$7,544,935.00	\$12.65	
Electrical	\$2,189,155.00	\$3.67	
	\$24,442,185.00	\$41.00	
Tenant Finish (Floors 1-10)			
Carpentry	\$908,350.00	\$1.52	
Thermal/Moisture Protection	\$73,650.00	\$0.12	
Doors & Windows	\$1,104,750.00	\$1.85	
Finishes	\$3,682,500.00	\$6.17	
Specialties	\$98,200.00	\$0.16	
Furnishings	\$122,750.00	\$0.21	
Mechanical	\$1,031,100.00	\$1.73	
Electrical	\$613,750.00	\$1.03	
	\$7,635,050.00	\$12.79	
Tenant Finish (Data Center)			
Carpentry	\$110,250.00	\$0.18	
Thermal/Moisture Protection	\$7,350.00	\$0.01	
Doors & Windows	\$95,550.00	\$0.16	
Finishes	\$318,500.00	\$0.53	
Leibert Chillers	\$100,000.00		
Specialties	\$588,000.00	\$0.99	
Equipment	\$112,700.00	\$0.19	
Mechanical	\$1,960,000.00	\$3.29	
Electrical	\$2,450,000.00	\$4.11	
	\$5,742,350.00	\$9.46	
Page Total	\$39,511,891.00	\$66.09	

Table 2.1 - Building Construction and Finishing (continued)

Product	Cost	Cost per Square Foot	Comments
Property Purchase	\$3,201,660.00		See Note 22
Audio/Visual Conference Equipment	\$111,246.00		See Notes 5 & 20
Data Graphics Projector	N/A		
Rear Screen Enclosure	N/A		
Multi-Standard Video Decoder	N/A		
Power Supply	N/A		
RGBS Loop Through Module	N/A		
W3 Breakout harness	N/A		
Signal Switcher	N/A		
Communications Cable	N/A		
RGBSync Input Modules	N/A		
Composite Video SVHS Input Modules	N/A		
Universal Computer Interface	N/A		
Mac Breakout Cable	N/A		
VGA Breakout Cable	N/A		
RGBS Cable	N/A		
Music System	N/A		
Miscellaneous Installation Materials	N/A		
	\$111,246.00		
General Conditions	\$1,773,535.00	\$2.97	See Notes 5 & 20
Building Permit & Plan Check Fees	\$222,629.00	\$0.37	See Notes 5 & 20
Performance & Payment Bond	\$199,739.00	\$0.33	See Notes 5 & 20
Contingency @ 5.00%	\$1,970,595.00	\$3.30	See Notes 5 & 20
	\$4,166,498.00	\$6.97	
Fee @ 3.00%	\$1,307,352.00	\$2.19	See Notes 5 & 20
Moving Costs	\$1,000,000.00		See Notes 19 & 21
Furniture including Conference Rooms	\$20,000,000.00		See Notes 19 & 21
Page Total	\$29,786,756.00	\$9.16	
Construction Total	\$69,298,647.00	\$75.25	

Table 2.2 - Building Automation and Physical Security

Product	Cost	Comments
Building Automation - Data Center		See Notes 5 & 20
Material/Devices	\$13,125.00	
Labor	\$7,575.00	
Subcontracting	\$22,200.00	
Freight, Warranty, Miscellaneous	\$1,050.00	
Use Taxes	\$788.00	
	\$44,738.00	
Building Automation - Tenant Space		See Notes 5 & 20
Material/Devices	\$21,875.00	
Labor	\$12,625.00	
Subcontracting	\$37,000.00	
Freight, Warranty, Miscellaneous	\$1,750.00	
Use Taxes	\$1,313.00	
	\$74,563.00	
Access Control	\$182,038.00	See Notes 5 & 20
Multiuser Software	N/A	
Input Card Readers	N/A	
Proximity Reader Interfaces	N/A	
Proximity Readers	N/A	
Power Supplies	N/A	
Door Strikes	N/A	
Infra-red Motion Detectors	N/A	
	\$182,038.00	
Page Total	\$301,339.00	

Table 2.3 - Facilities Lease

Product	Cost	Comments
Building Space Design	\$675,000.00	See Notes 19 & 21
Facilities Lease	\$13,500,000.00	See Notes 19 & 21
Brokerage Commission (3%)	\$405,000.00	See Notes 19 & 21
Build-out	\$2,025,000.00	See Notes 19 & 21
Moving Costs	\$1,000,000.00	See Notes 19 & 21
Furniture including Conference Rooms	\$20,000,000.00	See Notes 19 & 21
	\$37,605,000.00	
Audio/Visual Conference Equipment	\$111,246.00	See Notes 5 & 20
Data Graphics Projector	N/A	
Rear Screen Enclosure	N/A	
Multi-Standard Video Decoder	N/A	
Power Supply	N/A	
RGBS Loop Through Module	N/A	
W3 Breakout harness	N/A	
Signal Switcher	N/A	
Communications Cable	N/A	
RGBSync Input Modules	N/A	
Composite Video SVHS Input Modules	N/A	
Universal Computer Interface	N/A	
Mac Breakout Cable	N/A	
VGA Breakout Cable	N/A	
RGBS Cable	N/A	
Music System	N/A	
Miscellaneous Installation Materials	N/A	
	\$111,246.00	

Page Total

\$37,716,246.00

Enhanced Services Structural Separation
Appendix IV
Reference Index

- Note 1 Distribution of Macintosh and DOS based desktops is based upon industry studies indicating Macintosh platforms comprise 10% - 15% of the market.
- Note 2 Based on the Gartner Group/New Science Briefing on Office Automation Systems presented in Denver, Colorado on March 14, 1994:
- "Today and for the foreseeable future, BI (Business Intelligence) vendors will favor Windows Desktop ..."*
- Note 3 Groupware standard used by:
U S WEST Management Information Services
181 Inverness Drive West
Englewood, Colorado 80112
- Note 4 Hardware standard used by:
~~U S WEST Management Information Services~~
181 Inverness Drive West
Englewood, Colorado 80112
- Note 5 Sole Source Quote
- Note 6 Recommended configuration provided by Subject Matter Experts:
- T. David Rutherford
Advanced Member of Technical Staff (LAN Engineer)
External End User Support
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181 Inverness Drive West
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- Edward W. Brandorff
Member of Technical Staff (LAN Engineer)
External End User Support
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181 Inverness Drive West
Englewood, Colorado 80112
- Note 7 Recommended configuration provided by Subject Matter Expert:
- Michael Lamoreau
Advanced Member of Technical Staff (Network Engineer)
Connectivity Engineering
U S WEST Management Information Services
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Englewood, Colorado 80112

Enhanced Services Structural Separation
Appendix IV
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- Note 8 Recommended configuration provided by Subject Matter Expert:
Edward W. Brandorff
Member of Technical Staff (LAN Engineer)
External End User Support
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- Note 9 Estimates provided by Subject Matter Expert:
Paul V. Mino
Senior Project Manager
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-
- Note 10 Estimates provided by Subject Matter Expert:
Robert L. Dahlen
Senior Project Manager
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- Note 11 1% of installed base.
- Note 12 Cost includes unpacking, initial setup, hardware burn-in, loading/configuring software, installing at final location, and establishing connectivity.

Approximately 2 hours per desktop @ \$50.00 per hour.
Approximately 30 hours per server @ \$70.00 per hour.
- Note 13 Cost includes unpacking, initial setup, hardware burn-in, loading/configuring software, installing at final location, and establishing connectivity

Approximately 16 hours per device @ \$70.00 per hour.
- Note 14 Estimates provided by Subject Matter Expert:
Ron M. Trasky
Project Manager
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181 Inverness Drive West
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Enhanced Services Structural Separation
Appendix IV
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- Note 15 Estimates provided by Subject Matter Expert:
 Kathleen E. Soucek
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 181 Inverness Drive West
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- Note 16 Estimates provided by Subject Matter Expert:
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- Note 17 Estimates provided by Subject Matter Expert:
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- Note 18 Estimates provided by Subject Matter Expert:
 Michael Kinder
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 181 Inverness Drive West
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CERTIFICATE OF SERVICE

I, Kristi Jones, do hereby certify that I have caused 1) the foregoing **OPPOSITION OF U S WEST COMMUNICATIONS, INC.** to be filed electronically with the FCC by using its Electronic Comment Filing System, 2) a copy of the **OPPOSITION** to be served, via hand delivery, upon the persons listed on the attached service list (those marked with a number sign), 3) a courtesy copy of the **OPPOSITION** to be served, via hand delivery, upon the persons listed on the attached service list (those marked with an asterisk), and 4) a copy of the **OPPOSITION** to be served, via first class United States mail, postage prepaid, upon all other persons listed on the attached service list.

Kristi Jones

Kristi Jones

December 17, 1999

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